

Gas-fired domestic appliances producing hot water -  
Part 7: Assessment of energy consumption of  
combination boilers equipped with a passive flue heat  
recovery device

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 13203-7:2022 sisaldab Euroopa standardi EN 13203-7:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 13203-7:2022 consists of the English text of the European standard EN 13203-7:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.08.2022.	Date of Availability of the European standard is 10.08.2022.
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ICS 91.140.65

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English Version

## Gas-fired domestic appliances producing hot water - Part 7: Assessment of energy consumption of combination boilers equipped with a passive flue heat recovery device

Appareils domestiques produisant de l'eau chaude sanitaire utilisant les combustibles gazeux - Partie 7 : Évaluation de la consommation énergétique d'une chaudière à deux services équipée d'un dispositif passif de récupération de la chaleur dans les produits de combustion

Gasgeräte für die häusliche Warmwasserbereitung - Teil 7: Bewertung des Energieverbrauchs von Kombigeräten, ausgerüstet mit einer passiven Vorrichtung zur Wärmerückgewinnung im Abgasschacht

This European Standard was approved by CEN on 13 June 2022.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 7 September 2022.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN 13203-7:2022) has been prepared by Technical Committee CEN/TC 109 “Central heating boilers using gaseous fuels”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2023, and conflicting national standards shall be withdrawn at the latest by February 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

The main purpose of this revision is to provide a means of conforming to requirements of Commission Delegated Regulation (EC) n°813/2013, (EC) n° 811/2013, (EC) n° 812/2013 and (EC) n° 814/2013.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This document refers to clauses of EN 13203-2:2022 or adapts clauses by stating in the corresponding clause, on the principle:

- shall be according to EN 13203-2:2022, (clause number) with the following modification;
- shall be according to EN 13203-2:2022, (clause number) with the following addition;
- EN 13203-2:2022, (clause number) is replaced with the following;
- EN 13203-2:2022, (clause number) is not applicable.

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## 1 Scope

This document is applicable to gas-fired appliances producing domestic hot water. It applies to condensing combination boilers with passive flue heat recovery device (PFHRD) that have:

- a heat input not exceeding 400 kW;
- a hot water storage tank capacity (if any) not exceeding 2 000 l;
- a declared load profile between M to 4XL.

In the case of combination boilers, with or without storage tank, domestic hot water production is integrated or coupled, the whole being marketed as a single unit.

For this document, some tests and calculation results of EN 13203-2:2022 are used to calculate the energy consumptions.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13203-1:2015, *Gas fired domestic appliances producing hot water — Part 1: Assessment of performance of hot water deliveries*

EN 13203-2:2022, *Gas-fired domestic appliances producing hot water — Part 2: Assessment of energy consumption*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13203-2:2022, Clause 3, with and the following additions apply:

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 3.1

#### **direct PFHRD contribution**

energy recovered from the flue gases during domestic hot water production and used to preheat the cold domestic water

### 3.2

#### **indirect PFHRD contribution**

energy recovered from the flue gases during central heating production, then stored and used to preheat the cold domestic water

### 3.3

#### **nominal average heat inputs ( $Q_a$ )**

arithmetic mean of the adjustable maximum and minimum nominal heat input (kW) as declared by the technical documentation for range rating appliances